Types of Diabetes Mellitus	***Definitions for Diabetes Mellitus Types***	***Regimen of Therapy for Management***
Type I diabetes *or* *Insulin Dependent Diabetes Mellitus (IDDM)*	• Type I diabetes is managed by: - diabetes education. - a balanced diet and exercise. - testing blood glucose frequently. - *daily* insulin injections. • Most people with Type I diabetes usually acquire it before age 40. • The mismanagement and/or duration of Type I diabetes increases transitory (acute) and long term (chronic) complications. • Hyperglycemic and/or hypoglycemic reactions may occur in spite of conscientious efforts to manage control by the person and their health care team.	• People with Type I diabetes will *always* require insulin injections for treatment to regulate their blood glucose.
Type II diabetes *or* *Non-Insulin Dependent Diabetes Mellitus (NIDDM)*	• People with Type II diabetes are likely to be older and overweight. • Generally, people with Type II diabetes are not dependent on insulin therapy. • They may even have normal or elevated concentrations of insulin in their blood. • People with Type II diabetes may be undiagnosed or asymptomatic for years, while slowly developing complications.	• Treatment for managing a person's Type II diabetes includes: - diabetes education. - a balanced diet and exercise. - testing blood glucose. - either oral hypoglycemic agent tablets or, on occasion, insulin injections as determined by his or her health care team.
Gestational Diabetes Mellitus *(GDM)*	• Gestational diabetes develops in some pregnant women during the second trimester. • Once the pregnancy is over, the gestational diabetes goes away. • A significant number of these women will eventually develop Type II diabetes later in life.	• Treatment for managing GDM is either a prescribed diet or insulin injections determined by the health care team.

*VISUAL CHANGES**

RANGE OF SEVERITY AND POSSIBLE COMPLICATIONS	FUNCTIONAL DRIVING IMPAIRMENTS	OTHER FACTORS CONTRIBUTING TO UNSAFE DRIVING	DRIVER LICENSING OPTIONS FOR VISUAL COMPLICATIONS
MILD • Premature cataracts. • Glaucoma. • Diabetic retinopathy earliest stage (nonproliferative or sometimes referred to as "background"): - diabetic macular edema.	***MILD*** • None.	• Change in daily routine (work or sleep). • Unplanned exercise. • Inadequate health care. • Noncompliance with medical regimen of therapy. • Lack of diabetes education. • Alcohol use or abuse. • Poor diet and nutrition. • Interfering effects of multi-medications. • Driving record.	***MILD*** *Reference Vision Guidelines.*
MODERATE • Cataracts. • Glaucoma. • Diabetic retinopathy (nonproliferative or proliferative): - diabetic macular edema	***MODERATE*** *Reference Vision Guidelines.*		***MODERATE*** *Reference Vision Guidelines.*
SEVERE • Cataracts. • Glaucoma. • Diabetic retinopathy (proliferative): - diabetic macular edema. • Retinal detachment. • Blindness.	***SEVERE*** *Reference Vision Guidelines.*		***SEVERE*** *Reference Vision Guidelines.*

Advice*:*

** Reference Vision Guidelines when visual acuity is questionable. A Report of Vision Examination (DL-62) is required before rendering any decision.*

Consider the person's entire diabetes condition.

Licensing decisions should be based on the medical condition(s) having the greatest effect on a person's ability to drive safely.

KIDNEY CHANGES

RANGE OF SEVERITY AND POSSIBLE COMPLICATIONS	FUNCTIONAL DRIVING IMPAIRMENTS	OTHER FACTORS CONTRIBUTING TO UNSAFE DRIVING	DRIVER LICENSING OPTIONS FOR KIDNEY COMPLICATIONS
MILD Diabetic Nephropathy Earliest Stage: • Hypertension (blood pressure greater than 160/95 mm Hg) due to increased peripheral resistance. • Persistent presence of protein in the urine (albuminuria) greater than 30mg but less than 300mg/100ml. • Not a candidate for hemodialysis or peritoneal dialysis since kidney function is more than 5%.	***MILD*** • None.	• Change in daily routine (work or sleep). • Unplanned exercise. • Inadequate health care. • Noncompliance with medical regimen of therapy. • Lack of diabetes education. • Alcohol use or abuse. • Poor diet and nutrition. • Interfering effects of multi-medications. • Driving record. • Illness and infections.	***MILD*** *"No Action"* If severity of kidney complication is long standing and a review of the driving record determines continued ability to demonstrate compensation, and no other disqualifying complications.
MODERATE Diabetic Nephropathy Clinical: • Abnormal kidney function. • Persistent urinary albuminuria greater than 300 mg/100ml. • Persistent hypertension. • Fluid retention causing swelling (edema) in the feet, legs, abdomen, and face. • Potential candidate for hemodialysis or peritoneal dialysis; 95% or less of kidney function has been lost. • History of cardiovascular disease. • History of stroke. • Loss of muscular control.	***MODERATE*** Cognitive: • Inability to concentrate. Loss of Muscular Control or Coordination: • Fatigue. • Dizziness. Musculoskeletal: • Physical weakness. • Decreased lower extremity functional and muscular coordination deteriorating the range of motion for lower back, torso, legs, and feet. • Numbness in arms and legs decreasing range of motion and endurance with less ability to steer smoothly. • Burning sensation in the feet affecting smooth operation of accelerator, brake, or clutch pedals.		***MODERATE*** Since the rate of progression is highly variable for a person with renal disease a special driving test is required when ability to drive safely is affected by: • Physical weakness or frailty decreasing stamina to drive. • Muscular incoordination affecting range of motion. • Cognitive deficits causing poor safety awareness. *"No Action"* If severity of kidney complication is long standing and a review of the driving record determines continued ability to demonstrate compensation, and no other disqualifying complications. *"Medical Probation II"* If kidney condition is not stabilized within the previous three months because of: • The severity of complication has recently been determined. • Regimen of therapy has recently changed. • Human error in medication and management. • Other temporary precipitating factors contributing to unsafe driving. *"Restriction"* Application of restrictions is guided by: • A review of the driving record to determine a continued ability to demonstrate compensation. • The results of a vision screening. • Special drive test. • Any other traffic safety risks. *NOTE: for example consider driving restrictions such as neighborhood, time of day, no freeway driving, automatic transmission, sunrise to sunset, to and from designated destinations, additional or special equipment to increase driving proficiency.*

KIDNEY CHANGES (continued)

RANGE OF SEVERITY AND POSSIBLE COMPLICATIONS	FUNCTIONAL DRIVING IMPAIRMENTS	OTHER FACTORS CONTRIBUTING TO UNSAFE DRIVING	DRIVER LICENSING OPTIONS FOR KIDNEY COMPLICATIONS
SEVERE Diabetic Nephropathy Latest Stage: • Serum creatinine greater than 133 µmol/L or above 2.0mg/dl. • Protein levels greater than 0.3g/L • Blood Urea Nitrogen (BUN) greater than 6.5mmol/L. • Physical debilitating kidney failure symptoms. • Persistent hypertension due to increased peripheral resistance. • End stage renal failure requiring dialysis therapy or organ transplantation for survival. • Hemodialysis or Peritoneal dialysis. • Fluid retention causing swelling (edema) in the feet, legs, abdomen, and face. • Kidney failure. • Uremic symptoms due to the build-up of creatinine and BUN toxins causing loss of muscular control and coordination. • History of vascular complications. • Loss of muscular control or coordination. • Cognitive deficits. • Seizure or convulsions.	***SEVERE*** Cognitive:* • Difficulty concentrating. • Memory loss. • Lethargic after dialysis. Loss of Muscular Control or Coordination:* • Dizziness. • Nausea. • Seizures or convulsions if end stage renal failure is untreated. • Temporary muscular weakness and fatigue before and after dialysis. Musculoskeletal: • Physical weakness. • Shortness of breath. • Temporary muscular weakness and fatigue before and after dialysis. • Lower back pain decreasing functional and muscular coordination affecting range of motion. • Pain in chest while sitting. • Numbness in arms and legs decreasing range of motion and endurance with less ability to steer smoothly. • Burning sensation in the feet affecting smooth operation of accelerator, brake, or clutch pedals.	• Change in daily routine (work or sleep). • Unplanned exercise. • Inadequate health care. • Noncompliance with medical regimen of therapy. • Lack of diabetes education. • Alcohol use or abuse. • Poor diet and nutrition. • Interfering effects of multi-medications. • Driving record.	***SEVERE*** Since the rate of progression is highly variable for a person with renal disease, a special driving test (SDT) is required when ability to drive safely is affected by: • Physical weakness or frailty decreasing stamina to drive. • Muscular incoordination affecting range of motion. • Cognitive deficits causing poor safety awareness. *"Restriction"* Application of restrictions is guided by: • A review of the driving record to determine continued ability to demonstrate compensation. • The results of a vision screening. • Special drive test. • Any other traffic safety risks. *NOTE: For example consider driving restrictions such as: neighborhood, time of day, no freeway driving, automatic transmission, sunrise to sunset, to and from designated destinations, additional or special equipment to increase driving proficiency.* *"Calendar Reexamination with Special Driving Test"* A calendar reexamination with a SDT should be scheduled when: • Persons with end stage renal disease are just starting a dialysis regimen of therapy, since symptoms of renal failure can be nonspecific. • Post-operative organ transplant recovery. *"Medical Probation II"* If kidney complication is stabilized for at least for at 3 months on dialysis. Medical reports from driver's physician are needed for recent dialysis regimen of therapy for end stage renal disease. Driver should be closely monitored by medical probation for debilitating kidney failure conditions or other illnesses that may contribute to unsafe driving, since symptoms of diabetic nephropathy complications can be nonspecific. *"Suspension"* Severity of kidney complication affects the driver's ability to safely operate a motor vehicle a suspension may be reasonable if: • Complication is not stabilized due to precipitating factors. • Does not comply with care, medication, or dialysis regimen. • Regimen of therapy has recently changed. • Driver is a candidate for an organ transplantation. *"Revocation"* If kidney complication is not likely to ever be brought under control a revocation may be reasonable if: • Functional impairments affect safe driving due to renal or liver insufficiency causing loss of muscular control or seizures. • Driver fails to demonstrate compensation for the adverse affects of end stage renal failure functional impairments.

Advice: **Reference the Lapse of Consciousness (Metabolic Chart), and Dementia (Multi-infarct or Metabolic/Systemic Chart) Guidelines for additional licensing options.*

VASCULAR CHANGES

RANGE OF SEVERITY AND POSSIBLE COMPLICATIONS	FUNCTIONAL DRIVING IMPAIRMENTS	OTHER FACTORS CONTRIBUTING TO UNSAFE DRIVING	DRIVER LICENSING OPTIONS FOR VASCULAR COMPLICATIONS
MILD Atherosclerosis: • Hypertension due to increased peripheral resistance. • Cardiovascular disease. • Cerebrovascular disease. • Peripheral artery disease. ***MODERATE*** Atherosclerosis: • Hypertension due to increased peripheral resistance. • Peripheral artery disease. • Cerebral vascular disease. • Coronary vascular disease. • Chronic stable angina or chest pain. • Intermittent claudication (leg cramps) lower leg pain induced with moderate exercise. • Visual changes. • Cognitive deficits.	***MILD*** • None. ***MODERATE*** Cognitive: • Lack of concentration and judgment to react appropriately in different driving situations. Musculoskeletal: • Lack of upper body strength and dexterity to properly maintain physical control over vehicle. • Chest pain while sitting. • Physical frailty. • Erratic operation of accelerator, brake, or clutch pedals affecting ability to control speed or deceleration especially in congested traffic situations or challenging geographical locations. • Lack of lower body strength and dexterity to properly move or adjust foot to/from accelerator, brake, or clutch pedals. • Persistent pain affecting concentration and judgment. Visual Changes: • Visual and depth perception deficits.	• Change in daily routine (work or sleep). • Unplanned exercise. • Inadequate health care. • Noncompliance with medical regimen of therapy. • Lack of diabetes education. • Alcohol use or abuse. • Poor diet and nutrition. • Interfering effects of multi-medications. • Driving record.	***MILD*** *"No Action"* If severity of vascular complication is long standing and a review of the driving record determines continued ability to demonstrate compensation, and no other disqualifying complications. ***MODERATE*** Since the rate of progression is highly variable for a person with vascular disease, a special driving test (SDT) is required when ability to drive safely is affected by: • Physical weakness or frailty decreasing stamina to drive. • Muscular incoordination affecting range of motion. • Cognitive deficits causing poor safety awareness. *"Restriction"* Application of restrictions is guided by: • A review of the driving record to determine continued ability to demonstrate compensation. • The results of a vision screening. • Special drive test. • Any other traffic safety risks. *NOTE: for example consider driving restrictions such as neighborhood, time of day, no freeway driving, automatic transmission, sunrise to sunset, to and from designated destinations, additional or special equipment to increase driving proficiency.* *"Medical Probation II"* If vascular condition is not stabilized within the previous three months because of: • The severity of complication has recently been determined. • Regimen of therapy has recently changed. • Human error in medication and management. • Other temporary precipitating factors contributing to unsafe driving. *"Suspension"* A suspension may be reasonable if: • Complication is not stabilized due to precipitating factors contributing to unsafe driving. • Driver does not demonstrate compensation on a SDT for the adverse affects of functional impairments. • Does not comply with care or medication regimen. • Regimen of therapy has recently changed.

*VASCULAR CHANGES (continued)**

RANGE OF SEVERITY AND POSSIBLE COMPLICATIONS	FUNCTIONAL DRIVING IMPAIRMENTS	OTHER FACTORS CONTRIBUTING TO UNSAFE DRIVING	DRIVER LICENSING OPTIONS FOR VASCULAR COMPLICATIONS
SEVERE Atherosclerosis: • Hypertension due to increased peripheral resistance. • Peripheral artery (vascular) disease. • Claudication (leg cramping) lower leg pain with minimal exercise. • Visual changes.* • Significant ischemia. • Cardiovascular disease. • Angina. • Transient Ischemic Attack (TIA). • Carotid bruit. • Cerebrovascular disease possibly causing brain damage.* • Stroke.* • Lower extremity amputation. • Foot lesions (ulcer) infection or gangrene. • Vascular dementia.* • Cognitive deficits.* • Loss of control or loss of muscular control. • Sudden death.	***SEVERE*** Cognitive:* • Lack of concentration and impaired judgment to react appropriately in different driving situations. • Decreased cognitive functions. Loss of Consciousness or Loss of Muscular Control:* • Loss of muscular control and coordination; may be unable to maintain physical control of vehicle. • Loss of awareness of environment. Musculoskeletal: • Lack of upper body strength and dexterity to properly maintain physical control over vehicle. • Chest pain affecting steering action. • Physical frailty or weakness. • Erratic operation of accelerator, brake, or clutch pedals causing inability to control speed or deceleration in different traffic situations and geographical locations. • Unable to properly move or adjust foot from accelerator, brake, or clutch pedals. • Loss of leg or foot resulting in possible use of hand controls. Visual Changes:* • Visual and depth perception deficits. • Loss of complex visual acuity. • Cortical blindness. • Other visuospatial difficulties.	• Change in daily routine (work or sleep). • Unplanned exercise. • Inadequate health care. • Noncompliance with medical regimen of therapy. • Lack of diabetes education. • Alcohol use or abuse. • Illness or infections. • Poor diet and nutrition. • Interfering effects of multi-medications. • Driving record.	***SEVERE*** Since the rate of progression is highly variable for a person with vascular disease, a special driving test (SDT) is required when ability to drive safely is affected by: • Physical weakness or frailty decreasing stamina to drive. • Muscular incoordination affecting range of motion. • Cognitive deficits causing poor safety awareness. *"Restriction"* Application of restrictions is guided by: • A review of the driving record to determine continued ability to demonstrate compensation. • The results of a vision screening. • Special drive test. • Any other traffic safety risks. *NOTE: for example consider driving restrictions such as neighborhood, time of day, speed, no freeway driving, automatic transmission, sunrise to sunset, to and from designated destinations, special equipment such as artificial leg, hand controls, and supportive devices to increase driving proficiency.* *"Calendar Reexamination with Special Drive Test"* A calendar reexamination with a SDT should be scheduled when: • Persons with vascular disease are just starting a regimen of therapy. • Debilitating medical conditions or other illnesses resulting from other factors contributing to unsafe driving, since symptoms of vascular complications can be nonspecific. *"Medical Probation II"* If vascular condition is not stabilized within the previous three months because of: • The severity of complication has recently been determined. • Regimen of therapy has recently changed. • Human error in medication and management. • Other temporary precipitating factors contributing to unsafe driving. *"Suspension"* Severity of complication affects the driver's ability to safely operate a motor vehicle a suspension may be reasonable if: • Complication is not stabilized due to precipitating factors. • Driver fails to demonstrate compensation for the adverse affects of vascular complication functional impairments. • Does not comply with care, medication, or dialysis regimen. • Regimen of therapy has recently changed. *"Revocation"* If vascular complication is not likely to ever be brought under control a revocation may be reasonable if: • Functional impairments affect safe driving due to severity of complication.
Advice: *Reference: Vision, Lapses of Consciousness, or Dementia (Multi-infarct *vascular dementia*, or Metabolic/Systemic Chart) Guidelines.			

PERIPHERAL NERVOUS SYSTEM CHANGES

RANGE OF SEVERITY AND POSSIBLE COMPLICATIONS	FUNCTIONAL DRIVING IMPAIRMENTS	OTHER FACTORS CONTRIBUTING TO UNSAFE DRIVING	DRIVER LICENSING OPTIONS FOR NERVOUS SYSTEM COMPLICATIONS

MILD Diabetic Neuropathy (peripheral nervous system diseases): • motor nerves (muscular weakness). • sensory nerves (loss of feeling). • autonomic nerves (loss of bodily functions that are not normally under consciousness control, such as): -gastrointestinal (digestive tract). -cardiovascular system (abnormal heart beat, blood pressure, sweating). -genitourinary system (genital organs). ***MODERATE*** Diabetic Neuropathy (peripheral nervous system diseases): • motor nerves (muscular weakness): - Diabetic amyotrophy. - Thoracic radiculopathy. - Unilateral foot drop. • sensory nerves (loss of feeling or sensation). - Carpal Tunnel Syndrome. • autonomic nerves (loss of bodily functions that are not normally under consciousness control, such as): -gastrointestinal (digestive tract). -cardiovascular system (abnormal heart beat, blood pressure, sweating). - Tachycardia. - Hypotension. - genitourinary system (genital organs).	***MILD*** • None ***MODERATE*** Motor Nerves: • Insufficient hand grip strength or range of motion to hold steering wheel steady during complex turning movements. • Insufficient leg strength causing inability to operate or smoothly apply accelerator, brakes, or clutch pedals. • Chest or abdominal weakness affecting range of motion while driving. • Inability to lift foot up. Sensory Nerves: • Loss of sensation (decreased sense for pain and numbness) in legs, feet, toes or hands affecting steering capability and smooth operation of gas, brake, or clutch pedals. • Distracting topical burning, or shooting pain feeling like ice picks or needles affecting concentration. • Facial pain leading to transitory paralysis of eye muscles causing double vision. Autonomic Nerves: • Shortness of breath. • Dizziness from hypotension. • Difficulty coordinating insulin with food intake causing blood glucose fluctuations causing hypoglycemic reactions.	• Change in daily routine (work or sleep schedule). • Unplanned exercise. • Inadequate health care. • Noncompliance with medical regimen of therapy. • Lack of diabetes education. • Alcohol use or abuse. • Poor diet and nutrition. • Interfering effects of multi-medications. • Driving record.	***MILD*** *"No Action"* If severity of complication is long standing and a review of the driving record determines continued ability to demonstrate compensation. ***MODERATE*** Since the rate of progression is highly variable for a person with nervous system disease, a special driving test (SDT) is required when ability to drive safely is affected by: • Physical weakness or frailty decreasing stamina to drive. • Muscular incoordination affecting range of motion. *Restriction"* Application of restrictions is guided by: • A review of the driving record to determine continued ability to demonstrate compensation. • The results of a vision screening. • Special drive test. • Traffic safety risks. *NOTE: for example consider driving restrictions such as neighborhood, time of day, speed, no freeway driving, automatic transmission, sunrise to sunset, to and from designated destinations, special equipment such as artificial leg, hand controls, and supportive devices to increase driving proficiency.* *"Calendar Reexamination with Special Drive Test"* A calendar reexamination with a SDT should be scheduled when: • Persons with nervous system complications are just starting a regimen of therapy. • Muscular weakness or loss of feeling is determined. • Debilitating medical conditions or other illnesses resulting from other factors contributing to unsafe driving, since symptoms can be nonspecific. *"Medical Probation II"* If nervous system disease is not stabilized within the previous three months because of: • The severity of complication has recently been determined. • Regimen of therapy has recently changed. • Human error in medication and management. • Other temporary precipitating factors contributing to unsafe driving. *"Suspension"* Severity of complication affects the driver's ability to safely operate a motor vehicle a suspension may be reasonable if: • Complications not stabilized due to precipitating factors. • Driver fails to demonstrate compensation for the adverse affects of nervous system disease complication functional impairments. • Does not comply with care or medication regimen. • Regimen of therapy has recently changed.

PERIPHERAL NERVOUS SYSTEM CHANGES (continued)

RANGE OF SEVERITY AND POSSIBLE COMPLICATIONS	FUNCTIONAL DRIVING IMPAIRMENTS	OTHER FACTORS CONTRIBUTING TO UNSAFE DRIVING	DRIVER LICENSING OPTIONS FOR NERVOUS SYSTEM COMPLICATIONS
SEVERE Diabetic Neuropathy: (peripheral nervous system diseases). • motor nerves (muscular weakness): - Diabetic amyotrophy. - Thoracic radiculopathy. - Unilateral foot drop. • sensory nerves (loss of feeling or sensation). - Carpal Tunnel Syndrome. • autonomic nerves (loss of bodily functions that are not normally under consciousness control, such as): -gastrointestinal (digestive tract). -cardiovascular system (abnormal heart beat, blood pressure, sweating). - Tachycardia. - Hypotension. -genitourinary system (genital organs).	***SEVERE*** Motor Nerves: • Insufficient hand grip strength or range of motion to hold steering wheel steady during complex turning movements. • Insufficient leg strength causing inability to operate or smoothly apply accelerator, brakes, or clutch pedals. • Chest or abdominal weakness affecting range of motion while driving. • Inability to lift foot up. Sensory Nerves: • Loss of sensation (decreased sense for pain and numbness) in legs, feet, toes or hands affecting steering capability and smooth operation of gas, brake, or clutch pedals, also affecting where feet and hands are placed without looking at them (proprioception). • Distracting topical burning, or shooting pain feeling like ice picks or needles affecting concentration. • Facial pain leading to acute paralysis of eye muscles causing double vision. Autonomic Nerves: • Shortness of breath. • Heart failure. • Dizziness from hypotension • Difficulty coordinating insulin with food intake causing blood glucose fluctuations causing hypoglycemic reactions and brittleness. • Possible inability to recognize hypoglycemia warning signs or symptoms.	• Change in daily routine (work or sleep schedule). • Unplanned exercise. • Inadequate health care. • Noncompliance with medical regimen of therapy. • Lack of diabetes education. • Alcohol use or abuse. • Poor diet and nutrition. • Interfering effects of multi-medications. • Driving record. • "Tight control" of blood glucose levels.	***SEVERE*** ***Special Drive Test Is Required For Any Severe Peripheral Nervous System Change.*** *Restriction"* Application of restrictions is guided by: • A review of the driving record to determine continued ability to demonstrate compensation. • The results of a vision screening. • Special drive test. • Traffic safety risks. *NOTE: for example consider driving restrictions such as neighborhood, time of day, speed, no freeway driving, automatic transmission, sunrise to sunset, to and from designated destinations, special equipment such as artificial leg, hand controls, and supportive devices to increase driving proficiency* *"Calendar Reexamination with Special Drive Test"* A calendar reexamination with a SDT should be scheduled when: • Persons with nervous system complications are just starting a regimen of therapy. • Muscular weakness or loss of feeling is determined.. • Debilitating medical conditions or other illnesses resulting from other factors contributing to unsafe driving, since symptoms can be nonspecific. *"Suspension"* Severity of complication affects the driver's ability to safely operate a motor vehicle a suspension may be reasonable if: • Complications not stabilized due to precipitating factors. • Does not comply with care or medication regimen. • New regimen of therapy. *"Revocation"* If complication is not likely to ever be brought under control a revocation may be reasonable if: • Functional impairments affect safe driving due to severity of complication. • Driver fails to demonstrate compensation for the adverse affects of vascular complication functional impairments.

HYPOGLYCEMIA TRANSITORY REACTIONS

RANGE OF SEVERITY AND POSSIBLE COMPLICATIONS	FUNCTIONAL DRIVING IMPAIRMENTS	OTHER FACTORS CONTRIBUTING TO UNSAFE DRIVING	DRIVER LICENSING OPTIONS FOR HYPOGLYCEMIA COMPLICATIONS
MILD *Rapid Onset - Requiring Self Treatment.* Note: The driver may experience any of these transitory symptoms during an episode: • Sweating. • Shakiness or tremors. • Visual changes. • Rapid heartbeat. • Hunger. • Lightheadedness or faintness. • Weakness or fatigue. • Slower reaction times. • Confusion. • Irritability or grouchiness. • Anxiety or nervousness.	***MILD*** • None.	• Change in daily routine (work or sleep). • Too much unplanned exercise. • Inadequate health care. • Noncompliance with medical regimen of therapy. • Lack of diabetes education. • Alcohol use or abuse. • Illness or infections. • Poor diet and nutrition. • Interfering effects of multi-medications. • Too little food or delayed meals. • Too much insulin or oral diabetes medication. • Driving record.	***MILD*** *"No Action"* If hypoglycemia is well managed and: • A review of the driving record determines continued ability to demonstrate compensation. • Able to anticipate and self manage an episode. • Strict adherence with regimen of therapy. • Absence of incapacitation or mental confusion due to insulin reaction. • No loss consciousness, muscular control, or awareness of surroundings.
MODERATE *Rapid Onset - May Require Assistance In Treatment.* Note: The driver may experience any of these transitory symptoms during an episode: • Hunger. • Rapid heartbeat. • Personality changes. • Sweating. • Pallor. • Clammy skin. • Tremors.* • Cognitive deficits.	***MODERATE*** Cognitive Changes During An Episode: • Impaired judgment. • Poor judgment and safety awareness. • Reduced problem solving skills while driving in hazardous traffic situations. • Decreased memory and orientation. • Unawareness of disability to recognize warning symptoms of hypoglycemia. • Slower responses. Visual Changes During An Episode: • Blurriness. • Dark spots. • Double vision (Diplopia). • Diminished ability to recognize color. • Decreased depth or foreground perception.		***MODERATE*** *"Medical Probation II"* If within the previous three months hypoglycemia reactions have recently been determined because: • Regimen of therapy has recently changed. • Human error in medication or management. • Other temporary precipitating factors that may contribute to unsafe driving. **Note:** Loss of muscular control and coordination must be minimal to the point that physical control of a motor vehicle can be maintained. *"Suspension"* Frequency and severity of hypoglycemia reactions affects the driver's ability to safely operate a motor vehicle a suspension may be reasonable if: • Fails to demonstrate control for hypoglycemia reactions and is adversely affected by precipitating factors. • Noncompliance with regimen of therapy. • Medical condition may likely improve. *"Revocation"* If hypoglycemia is not likely to ever be brought under control a revocation is appropriate.

Advice:
*Reference the Lapses of Consciousness (Metabolic Chart) Guidelines.

HYPOGLYCEMIA TRANSITORY REACTIONS (continued)

RANGE OF SEVERITY AND POSSIBLE COMPLICATIONS	FUNCTIONAL DRIVING IMPAIRMENTS	OTHER FACTORS CONTRIBUTING TO UNSAFE DRIVING	DRIVER LICENSING OPTIONS FOR HYPOGLYCEMIA COMPLICATIONS
SEVERE *Rapid Onset - Usually Requiring Emergency Measures By Someone Else*. Note: The driver may experience any of these transitory symptoms during an episode: • Severe hypoglycemia reactions occur unpredictably without warning. • Someone having an insulin reaction may appear: - angry. - combative. - stuporous. - unresponsive. - drunk and may experience difficulty walking correctly. • Visual changes. • Cognitive deficits. • Altered mental state. • Hypoglycemia unawareness. • Syncope.***** • Lapses of consciousness or loss of muscular control.* • Sudden death.	***SEVERE*** • CAN NOT DRIVE SAFELY. Lapses of Consciousness or Loss of Muscular Control During An Episode:* • Reduced problem solving skills and poor judgment while driving. • Slower responses**.** • Loss of muscular control. • Seizure or convulsions. • Unawareness of disability to recognize warning symptoms of hypoglycemia. Visual Changes During An Episode:***** • Blurriness. • Dark spots. • Double vision (Diplopia). • Diminished color distinction. • Decreased depth and foreground perception. Cognitive Changes During An Episode: • Impaired judgment. • Poor judgment and safety awareness. • Reduced problem solving skills while driving in hazardous traffic situations. • Decreased memory and orientation. • Unawareness of disability to recognize warning symptoms of hypoglycemia. • Slower responses.	• Change in daily routine (work or sleep). • Too much unplanned exercise. • Inadequate health care. • Noncompliance with medical regimen of therapy. • Lack of diabetes education. • Alcohol use or abuse. • Illness or infections. • Poor diet and nutrition. • Interfering effects of multi-medications. • Too little food or delayed meals. • Too much insulin or oral diabetes medication. • Driving record.	***SEVERE*** *"Medical Probation II"* If within the previous three months hypoglycemia reactions have recently been determined because: • Regimen of therapy has recently changed. • Human error in medication or management. • Other temporary precipitating factors that may contribute to unsafe driving. **Note:** Loss of muscular control and coordination must be minimal to the point that physical control of a motor vehicle can be maintained. *"Suspension"* Frequency and severity of hypoglycemia reactions affects the driver's ability to safely operate a motor vehicle a suspension may be reasonable if: • Fails to demonstrate control for hypoglycemia reactions and is adversely affected by precipitating factors. • Noncompliance with regimen of therapy. • Medical condition may likely improve. *"Revocation"* If hypoglycemia is not likely to ever be brought under control a revocation is appropriate.

Advice:
*Reference Lapses of Consciousness (Syncope and Metabolic Chart) Guidelines .

NOTE: Persons with diabetes should:
(1) Check their own blood glucose levels for hypoglycemia symptoms before driving, and not drive if blood glucose is too low.
(2) Keep a supply of sugar material (carbohydrate) available in the vehicle to treat hypoglycemia.
(3) Know how to recognize their own hypoglycemia symptoms, and know when and how to treat it, especially when driving a motor vehicle.
(4) Store insulin in an environmentally safe carrying case and location in vehicle, and carry personal medical identification.
(5) Not drink alcoholic beverages since it has a blood glucose-lowering effect that can last for up to thirty-six hours after consumption.

HYPERGLYCEMIC TRANSITORY REACTIONS

RANGE OF SEVERITY AND POSSIBLE COMPLICATIONS	FUNCTIONAL DRIVING IMPAIRMENTS	OTHER FACTORS CONTRIBUTING TO UNSAFE DRIVING	DRIVER LICENSING OPTIONS FOR HYPERGLYCEMIA COMPLICATIONS
MILD *Slow Onset-Requiring Self Treatment.* Note: The driver may experience any of these transitory symptoms during an episode: • Increased thirst and urination. • Weakness or fatigue. • Lethargy. • Dry mouth. • Blurred vision. • Hunger. • Nausea. ***MODERATE*** *Slow Onset - May Require Assistance In Treatment.* Note: The driver may experience any of these transitory symptoms during an episode: • Increased thirst and urination. • Abdominal pains and aches. • Heavy or labored breathing. • Loss of appetite. • Nausea and vomiting. • Fatigue. • Lethargy. • Weakness. • Dry mouth. • Cognitive deficits. • Visual changes. • Diabetic acidosis.	***MILD*** • None. ***MODERATE*** Cognitive Changes During An Episode: • Lethargy. • Slow responses. • Disorientation. • Stupor. • Inability to understand or recognize traffic safety errors. • Reduced problem solving ability. • Decreased memory and orientation, awareness of disability, and sense of movement. • Presence of incapacitation or mental confusion due to transitory diabetic acidosis. Musculoskeletal During An Episode: • Weakness. • Lack of functional muscular coordination and endurance needed to maintain strength to drive safely. • Abdominal pains and aches. Visual Changes During An Episode: • Blurred vision. • Reduced depth or foreground perception.	• Change in daily routine (work or sleep). • Not enough planned exercise. • Inadequate health care. • Noncompliance with medical regimen of therapy. • Lack of diabetes education. • Alcohol use or abuse. • Illness or infections. • Poor diet and nutrition. • Interfering effects of multi-medications. • Too much food. • Too little insulin or oral diabetes medication. • Emotional stress. • Driving record.	***MILD*** *"No Action"* If hyperglycemia is well managed and: • A review of the driving record determines continued ability to demonstrate compensation. • Able to anticipate and self manage an episode. • Strict adherence with regimen of therapy. • Absence of incapacitation or mental confusion due to insulin reaction. • No loss consciousness, muscular control, or awareness of surroundings. • Absence of incapacitation or mental confusion due to transitory diabetic acidosis. ***MODERATE*** *"Medical Probation II"* If within the previous three months: • Hyperglycemia reactions has recently been determined. • Regimen of therapy has recently changed. • Human error in medication and management. • Other temporary precipitating factors that may contribute to unsafe driving. *"Suspension"* Frequency and severity of hyperglycemia reactions affects the driver's ability to safely operate a motor vehicle a suspension may be reasonable if: • Fails to demonstrate control for hyperglycemia reactions and is adversely affected by precipitating factors that contribute to unsafe driving. • Noncompliance with regimen o f therapy. • Medical condition may likely improve. *"Revocation"* If hyperglycemia is not likely to ever be brought under control a revocation is appropriate.
Advice: *Reference Lapses of Consciousness Guidelines.			

HYPERGLYCEMIC TRANSITORY REACTIONS (continued)

RANGE OF SEVERITY AND POSSIBLE COMPLICATIONS	FUNCTIONAL DRIVING IMPAIRMENTS	OTHER FACTORS CONTRIBUTING TO UNSAFE DRIVING	DRIVER LICENSING OPTIONS FOR HYPERGLYCEMIA COMPLICATIONS
SEVERE *Slow Onset - Usually Requiring Emergency Measures By Someone Else*. Note: The driver may experience any of these transitory symptoms during an episode: • Cognitive deficits. • Diabetic ketoacidosis.* • Nonketotic hyperosmolar coma (NKHC) syndrome.* • Cerebral edema • Lapses of Consciousness or Loss of Muscular Control.* ** Diabetic ketoacidosis and NKHC develops over several hours or days. Severe complications requiring hospitalization may cause voluntary driving cessation.*	***SEVERE*** Cognitive Changes During An Episode:* • Lethargy. • Slow or delayed responses. • Disorientation. • Stupor. • Inability to understand or recognize traffic safety errors. • Reduced problem solving ability. • Decreased memory and orientation, awareness of disability, and sense of movement. • Mental confusion. Lapses of Consciousness or Loss of Muscular Control During An Episode:* • Convulsions. • Coma. Musculoskeletal During An Episode: • Weakness. • Lack of functional muscular coordination or endurance that is needed to maintain strength to drive safely. • Abdominal pains and aches affecting range of motion. Visual Changes: • Blurred vision. • Reduced depth or foreground perception.	• Change in daily routine (work or sleep). • Not enough planned exercise. • Inadequate health care. • Noncompliance with medical regimen of therapy. • Lack of diabetes education. • Alcohol use or abuse. • Illness or infections. • Poor diet and nutrition. • Interfering effects of multi-medications. • Too much food. • Too little insulin or oral diabetes medication. • Emotional stress. • Driving record.	***SEVERE*** *"Medical Probation II"* If within the previous three months: • Hyperglycemia reactions has recently been determined. • Regimen of therapy has recently changed. • Human error in medication and management. • Other temporary precipitating factors. *"Suspension"* Frequency and severity of hyperglycemia reactions affects the driver's ability to safely operate a motor vehicle a suspension may be reasonable if: • Fails to demonstrate control for hyperglycemia reactions and is adversely affected by precipitating factors. • Noncompliance with regimen o f therapy. *"Revocation"* If hyperglycemia is not likely to ever be brought under control a revocation may be reasonable if: • Any associated precipitating factor is likely to continue indefinitely, (such as infections, medication side effects, vascular events).
Advice: *Reference Lapses of Consciousness Guidelines.			